

## United States Patent and Trademark Office

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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

#### NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

05/06/2003

RATNER AND PRESTIA Suite 301, One Westlakes, Berwyn P.O. Box 980 Valley Forge, PA 19482-0980

	<del>.</del> ,	
EXAM	MINER	
WILSON, C	GREGORY A	
ART UNIT	CLASS-SUBCLASS	٠,
3749	122-014200	

DATE MAILED: 05/06/2003

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,568	02/08/2002	Maurizio Grando	C&P-103US	1954

TITLE OF INVENTION: FLAME ATMOSPHERE ANALYZER AND A WATER-HEATING DEVICE INCLUDING THE ANALYZER

APPLN, TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	1	DATE DUE
nonprovisional	YES	\$650	\$300	\$950	-;	08/06/2003

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

□ Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Box ISSUE FEE

Commissioner for Patents Alexandria, Virginia 22313-1450

(703)746-4000 Fax

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee sufficiently a separate "FEE ADDRESS" for maintenance fee sufficiently and the separate "FEE ADDRESS" for maintenance fee sufficiently and the separate "FEE ADDRESS" for maintenance fee sufficiently and the separate "FEE ADDRESS" for maintenance fee sufficiently and the separate "FEE ADDRESS" for maintenance fee sufficiently and the separate "FEE ADDRESS" for maintenance fee sufficiently and the separate "FEE ADDRESS" for maintenance fee sufficiently and the separate "FEE ADDRESS" for maintenance fee sufficiently and the separate "FEE ADDRESS" for maintenance fee sufficiently and the separate "FEE ADDRESS" for maintenance fee sufficiently and the separate "FEE ADDRESS" for maintenance fee sufficiently and the separate "FEE ADDRESS" for maintenance fee sufficiently and the separate "FEE ADDRESS" for maintenance fee sufficiently and the separate "FEE ADDRESS" for maintenance fee sufficiently and the separate "FEE ADDRESS" for maintenance fee sufficiently and the separate sufficiently and the

maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1) 7590 05/06/2003

RATNER AND PRESTIA Suite 301, One Westlakes, Berwyn P.O. Box 980 Valley Forge, PA 19482-0980

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below.

ransimitted to the OSI 10, on the date indicated selow.	
	(Depositor's name)
	(Signature)
	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,568	02/08/2002	Maurizio Grando	C&P-103US	1954

TITLE OF INVENTION: FLAME ATMOSPHERE ANALYZER AND A WATER-HEATING DEVICE INCLUDING THE ANALYZER

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nonprovisional	YES	\$650	\$300	\$950	08/06/2003
EXAMI	NER	ART UNIT	CLASS-SUBCLASS		
WILSON, GR	EGORY A	3749	122-014200		
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).		`   i	. For printing on the patent from ne names of up to 3 registered p	patent attorneys	
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.		r agents OR, alternatively, (2) ingle firm (having as a memb	er a registered		
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.		tion form	ttorney or agent) and the name gistered patent attorneys or age s listed, no name will be printed.		

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category	or categories (will not be printed on the patent)	☐ individual	☐ corporation or other private group entity	☐ government		
4a. The following fee(s) are enclosed:	4b. Payment of Fee(s):					
☐ Issue Fee☐ Publication Fee	A check in the amount	☐ A check in the amount of the fee(s) is enclosed.				
	Payment by credit care	☐ Payment by credit card. Form PTO-2038 is attached.				
☐ Advance Order - # of Copies	☐ The Commissioner is Deposit Account Numbe	☐ The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number(enclose an extra copy of this form).				
Commissioner for Patents is requested to apply	the Issue Fee and Publication Fee (if any) or to re	apply any previo	usly paid issue fee to the application identific	ed above.		
(Authorized Signature)	(Date)					
NOTE; The Issue Fee and Publication Fee	(if required) will not be accepted from anyone					

other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450.

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10/072,568	02/08/2002	Maurizio Grando	C&P-103US	1954
75	90 05/06/2003		EXAMIN	ER
RATNER AND F	PRESTIA		WILSON, GRE	EGORY A
Suite 301, One Wes	stlakes, Berwyn		ART UNIT	PAPER NUMBER
Valley Forge, PA 1	9482-0980		3749	
			DATE MAILED: 05/06/2003	$\mathcal{G}$

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The patent term adjustment to date is 28 days. If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the term adjustment will be 28 days.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (http://pair.uspto.gov)

Any questions regarding the patent term extension or adjustment determination should be directed to the Office of Patent Legal Administration at (703)305-1383.



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10/072,568	02/08/2002	Maurizio Grando	C&P-103US	1954
7	7590 05/06/2003		EXAMIN	ER
RATNER AND PRESTIA		WILSON, GREGORY A		
Suite 301, One We	estlakes, Berwyn		ART UNIT	PAPER NUMBER
Valley Forge, PA 19482-0980 UNITED STATES		3749		
			DATE MAILED: 05/06/2003	

#### Notice of Fee Increase on January 1, 2003

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after January 1, 2003, then the amount due will be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on January 1, 2003. See Revision of Patent and Trademark Fees for Fiscal Year 2003: Final Rule, 67 Fed. Reg. 70847, 70849 (November 27, 2002).

The current fee schedule is accessible from: http://www.uspto.gov/main/howtofees.htm.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of the fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after January 1, 2003 (or mailed with a certificate of mailing on or after January 1, 2003), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

	Application No.	Applicant(s)	
Notice of Allowability	10/072,568	GRANDO ET AL.	
Notice of Allowability	Examiner	Art Unit	
	Gregory A. Wilson	3749	
The MAILING DATE of this communication app All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85 NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.31:  1.  This communication is responsive to 2/8/02. 2.  The allowed claim(s) is/are 1-20. 3.  The drawings filed on are accepted by the Examine 4.  Acknowledgment is made of a claim for foreign priority un a) All b) Some* c) None of the:  1.  Certified copies of the priority documents have	pears on the cover sheet with S (OR REMAINS) CLOSED in to or other appropriate communated of the community of the comm	the correspondence address his application. If not include ication will be mailed in due object to withdrawal from issue	ed
2. ☐ Certified copies of the priority documents have		A I -	
3.  Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)).  * Certified copies not received:  5.  Acknowledgment is made of a claim for domestic priority u  (a)  The translation of the foreign language provisional a  6.  Acknowledgment is made of a claim for domestic priority u  Applicant has THREE MONTHS FROM THE "MAILING DATE" of below. Failure to timely comply will result in ABANDONMENT of  7.  A SUBSTITUTE OATH OR DECLARATION must be submits INFORMAL PATENT APPLICATION (PTO-152) which gives reas  8.  CORRECTED DRAWINGS must be submitted.  (a)  including changes required by the Notice of Draftspers  1)  hereto or 2)  to Paper No  (b)  including changes required by the proposed drawing of including changes required by the attached Examiner'  Identifying indicia such as the application number (see 37 CFR 1. each sheet.	ander 35 U.S.C. § 119(e) (to a papplication has been received. Inder 35 U.S.C. §§ 120 and/or of this communication to file a rethis application. THIS THREE mitted. Note the attached EXAM son(s) why the oath or declarate son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son of the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed, which it's Amendment / Comment or in the son's Patent Drawing Review (correction filed)	n this national stage application this national stage application or ovisional application).  121.  121.  121.  121.  131.  141.  152.  163.  164.  175.  176.  17	rements noted EXTENDABLE. OTICE OF  kaminer.
9. ☐ DEPOSIT OF and/or INFORMATION about the deposent and the deposent an	sit of BIOLOGICAL MATER HE DEPOSIT OF BIOLOGICA	IAL must be submitted. No L MATERIAL.	ote the
Attachment(s)			
<ul> <li>Notice of References Cited (PTO-892)</li> <li>Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statements (PTO-1449), Paper No</li> <li>Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ul>	4☐ Interview S 6☐ Examiner's	formal Patent Application (P ummary (PTO-413), Paper N Amendment/Comment Statement of Reasons for Al	lo
GREG PRIMAI 410 0 0 000	ORY WILSON RY EXAMINER		

Art Unit: 3749

#### **DETAILED ACTION**

### **Priority**

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

## Allowable Subject Matter

Claims 1-20 are allowed.

The following is an examiner's statement of reasons for allowance: The primary reason for allowance is that prior art does not teach a flame atmosphere analyzer having a mixing chamber for combining an air and gas mixture for use in a burner wherein the primary combustion air-supply means has a duct connected to the mixing chamber at one end and an open second end in a location remote and at a predetermined distance from the air-gas mixture and mixing chamber of the analyzer.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion

Page 3

A call was made on March 14, 2003 to Kevin Casey for a restriction placed on this

application by the examiner in which case claims 1-5 and 17-20 were elected with

traverse. Upon further investigation of the claims, this restriction requirement was

deemed improper by the examiner and is hereby withdrawn. All claims (1-20) were

examined on the merits.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Gregory A. Wilson whose telephone number is (703)

308-1239. The examiner can normally be reached on 7 am - 4:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ira Lazarus can be reached on (703)308-1935. The fax phone numbers for

the organization where this application or proceeding is assigned are (703)308-7764 for

regular communications and (703) 308-7764 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 308-

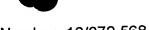
0861.

GREGORY WILSON
PRIMARY EXAMINER

May 1, 2003



Art Unit: 3749



#### **DETAILED ACTION**

#### Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- Claims 6-16, drawn to A Water-Heating Device including an Analyzer, 1. classified in class 122, subclass 14.2.
- Claims 1-5 & 17-20, drawn to A Flame Atmosphere Analyzer, classified in II. class 431, subclass 354.

The inventions are distinct, each from the other because of the following reasons:

Inventions of Group I and Group II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because a gas sensor in combination with a gas shut-off valve could be used in conjunction with the burner of a water heater. The subcombination has separate utility such as a flame analyzer for a furnace.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Kevin Casey on March 14, 2003 a provisional election was made without traverse to prosecute the invention of Group II, claims 1-5 & 17-20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 6-16 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory A. Wilson whose telephone number is (703) 308-1239. The examiner can normally be reached on 7 am - 4:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on (703)308-1935. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7764 for regular communications and (703) 308-7764 for After Final communications.





Art Unit: 3749

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

GREGORY WILSON PRIMARY EXAMINER

gaw

March 17, 2003